

REMARKS

In response to the Office Action mailed October 17, 2007, Applicants respectfully request reconsideration. Claims 1-5 were previously pending in this application. No claims have been added, amended or canceled herein. As a result, claims 1-5 remain pending for examination with claim 1 being the sole independent claim. No new matter has been added

Rejections under 35 U.S.C. § 103

The Office Action rejected claims 1-5 under 35 U.S.C. §103(a) as being purportedly unpatentable over IEEE Standard 802.1X-2001 Port-Based Network Access Control (hereinafter referred to as IEEE) in view of Chow et al. US Pub No. 2003/0058827 (hereinafter referred to as Chow). Applicants respectfully traverse these rejections.

1. Discussion of Some Embodiments of the Invention

According to prior techniques, if a subscriber tries to share in a multicast service, he/she needs to enter account number information twice: once during multicast authentication and once during 802.1X authentication. The subscriber may be allowed to use the network only after 802.1X authentication is passed. However, if the subscriber tries to share in a controlled multicast service, it is also necessary to perform multicast authentication.

According to some embodiments of the present invention, the system intercepts a request message for joining in a multicasting group, and obtains the subscriber account number information from 802.1X subscriber information according to a port number, MAC address and a multicasting IP address. Thus, in some embodiments, an access device may perform multicast authentication without further participation by the subscriber, i.e., the subscriber does not need to enter his/her account number and password after the 802.1X authentication. These embodiments can effectively combine two separate authentication procedures, including 802.1X authentication and multicast authentication.

The foregoing discussion of some embodiments of the invention is provided solely to aid in the appreciation of various aspects of the present invention, and is not intended to be limiting. Applicants respectfully request that the claims each be considered on their own merits.

2. Discussion of References Relied Upon in the Office Action

A. IEEE is a standards document describing the use of port-based network access control to provide authentication of devices connected to a local area network (LAN) port in an IEEE 802 LAN infrastructure (Abstract). FIG. 6-5 of IEEE illustrates a network that includes a supplicant system, an authenticator system, and an authentication server. As shown in FIGS. 6-5 and 8-3 of IEEE, the supplicant system is authenticated for IEEE communication by exchanging extensible authentication protocol (EAP) messages with the authentication server via the authenticator system. FIG. 8-3 of IEEE illustrates the sequence of EAP messages that are exchanged for authorizing communications via a particular port. FIG. 8-14 shows a state machine for a supplicant, including various states of authenticating, authenticated, connecting, etc. Annex C to IEEE includes a section J “Multicast Propagation” that briefly describes considerations for the forwarding of multicast packets by a bridge (page 119).

B. Chow describes an architecture for providing IP push-to-talk (IPP2T) service using a wireless local area network (WLAN) (Abstract). FIG. 2 of Chow illustrates wireless devices 220 (in home 205) that are connected to an IP network. As shown in FIG. 2, wireless devices 220 communicate with an access point in home 205 using the IEEE Standard 802.11 protocol. In Chow’s system, IPP2T service is provided by a wireless LAN mobile radio service (WLMRS) that is controlled by a WLMRSC 245 (§50). WLMRSC 245 is in communication with a database 273 that stores subscriber information for IPP2T subscribers (§51). To talk with multiple other users, the IPP2T system uses a multicasting technique to send packets to multiple devices in an IPP2T group (§49).

3. Claim 1 Distinguishes over the Combination of IEEE and Chow

Even if IEEE and Chow were combined, claim 1 patentably distinguishes over the combination. The Office Action states that Figure 6.5, Figure 8-3, Page 119 and Page 123 of IEEE describe steps 2, 3, 4 of Claim 1. Applicants respectfully disagree because none of these portions of IEEE describe a request for joining in a multicasting group, much less the interception of such a

request, or “obtaining a port number, a MAC address and a multicasting IP address” from such a request. Furthermore, IEEE is completely silent as to searching 802.1X subscriber information.

No multicast authentication is discussed in IEEE, only the propagation of multicast packets. Pages 118-119 of IEEE describe port authentication that occurs at the edge of a LAN (e.g., in a bridge). Page 119 j (Annex C) only discusses the propagation of multicast packets, not multicast authentication.

With respect to the passages of IEEE cited in the Office Action:

- Figures 6.5 and Figure 8-3 of IEEE only relate to 802.1X authentication, and do not involve multicast authentication or describe a request for joining a multicast group.
- Section C.3.3 in Page 123(Annex C) relates to how to prevent crosstalk between ports and does not involve multicast authentication or a request for joining a multicast group.
- Page 76-106 of IEEE provide computer code Definitions for Port Access Control. These portions of IEEE do not involve multicast authentication or describe a request for joining a multicast group.

By contrast, claim 1 recites, *inter alia*, Step 2: intercepting a request message for joining in a multicasting group sent from the subscriber; and Step 3: obtaining a port number, a MAC address and a multicasting IP address of the subscriber from the request message. IEEE does not teach or suggest intercepting a request message for joining a multicasting group or obtaining any information whatsoever from such a request. In addition, claim 1 also recites searching 802.1X subscriber information. Again, IEEE is completely silent as to searching 802.1X subscriber information. Chow fails to remedy these deficiencies of IEEE. Accordingly, withdrawal of this rejection is respectfully requested.

The Office Action further states that Chow describes steps 1, 2, and 5 of claim 1. Applicants respectfully disagree because Chow is completely silent as to either 802.1X authentication or multicast authentication. Although FIG. 2 of Chow illustrates wireless devices 220 that communicate according to IEEE protocol 802.11, Chow makes no mention of “performing 802.1X authentication for a subscriber and storing authenticated subscriber information.” Paragraph 139 of Chow states that authentication is performed by the WLMRSC, which controls the IPP2T service.

However, WLMRSC authentication is not the same as IEEE 802.11 authentication or multicast group authentication. Although Chow states that a multicast group for a user is identified based on the WLMRSC subscriber information (§139), merely identifying the user's correct multicasting group is not multicast authentication. In view of the foregoing, Chow fails to teach or suggest either IEEE 802.11 authentication or multicast authentication. Chow is further silent as to searching 802.1X authenticated subscriber information because Chow only describes WLMRSC IPP2T subscriber information, not 802.1X subscriber information.

In view of the foregoing, neither IEEE nor Chow teaches or suggests at least steps 2, 3 and 4 of claim 1. Therefore, claim 1 patentably distinguishes over any combination of IEEE and Chow. Accordingly, withdrawal of this rejection is respectfully requested.

Claims 2-5 depend from claim 1 and are therefore patentable for at least the same reasons.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

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